U.S. Department of Transportation
Federal Highway Administration
Western Federal Lands Highway Division

Materials Sampling, Field Testing and Laboratory Testing Plan

Strategic Highway Research Program

SPS-8 Experimental Project

Project No. PFH 176-1(1) & RS-A070(002)

North Touchet Road

Columbia County

Washington

SUPPLEMENT - JUNE 16, 1994

Prepared By

Nichols Consulting Engineers, Chtd.
SHRP Western Region Office

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1885 S. Arlington Ave., Suite 111
Reno, Nevada 89509

Shipping Tracking Table

This section contains a shipping tracking table which contains instructions for disposition of samples retrieved from the field. Using these tracking tables (Tables 18 and 19), sampling personnel can determine where each sample is supposed to be shipped and tested.

The Laboratory Test Number shall be assigned as per the following:

a. Beginning of the Section (Station 0-): samples of each layer that are retrieved from areas in the approach end of the test section (stations preceding 0+00) shall be assigned Laboratory Test Number '1'.
b. End of the Section (Stations 5+): samples of each layer that are retrieved from areas in the leave end of the test section (stations after 5+00) shall be assigned Laboratory Test Number '2'.
c. Middle of the Section (Stations 0+00 to 5+00): samples of each layer that are retrieved from areas in the middle of the test section (from the paver) shall be assigned Laboratory Test Number '3'.

Laboratory Tracking of Samples

This section contains Laboratory Sample Tracking Tables which contain instructions for sample handling and tracking throughout the laboratory testing process. Tables 20 through 22 detail the sample handling and testing for the state agency laboratory and Tables 23 through 25 detail the sample handling and testing for the FHWA-LTPP Laboratory Materials Testing Contractor.

These tables provide the laboratories with the following information and directions:

- tracking of samples as they are taken from the field and tested in the laboratory,
- laboratory test sequences for each pavement material type,
- dedicated sample(s) for each test,
- designation of extra samples for future use,
- instructions for sample storage, and
- special instructions and other remarks.

The following is a description of the column headings used for the tracking table:

- *Layer Number* - is assigned beginning with layer number 1. Layer number 1 is always assigned for the subgrade and the last layer number is always the pavement surface layer.
- *Layer Description Code* - is used to describe the material layer. Valid codes for this project are:

  Original Surface Layer 03
  AC Layer Below Surface (Binder Coarse) . . 04
  Base Coarse 05

Subgrade 07
Embankment (Fill) 11

- *Layer Type* - is used to classify the type of layer. Valid codes for this project are:

  AC . . . . . for asphalt concrete layer,
  GB . for unbound (granular) base layer,
  GS for unbound (granular) subbase layer,
  SS . . . . . for subgrade layer.

- *Test Section Number* - is the number of the test section for which the sample pertains.
- *Sample Location Number* - is the location the sample was taken and should be shown on sample tags and labels.
- *Sample Number* - is the number identifying each individual sample and should shown on sample tags and labels.
- *Lab Test Number* - shall be assigned as per the following:
  a. Beginning of the Section (Station 0-): samples of each layer that are retrieved from areas in the approach end of the test section (stations preceding 0+00) shall be assigned Laboratory Test Number '1'.
  b. End of the Section (Stations 5+): samples of each layer that are retrieved from areas in the leave end of the test section (stations after 5+00) shall be assigned Laboratory Test Number '2'.
  c. Middle of the Section (Stations 0+00 to 5+00): samples of each layer that are retrieved from areas in the middle of the test section (from the paver) shall be assigned Laboratory Test Number '3'.
- *Required Laboratory Tests Per Layer* - order in which testing shall proceed.
- *Extra Sample* - is the sample to be saved as a backup for other tests? A "yes" in this column implies that this is a dedicated extra sample saved for future use. A "no" indicates that a sample can be discarded after use.
- *Sample Storage* - the following codes are used to specify the sample storage conditions for samples:
  a. environmentally protected and controlled storeroom at 5-21°C (40-70°F).
  b. environmentally protected and controlled storeroom at 5-38°C (40-100°F).
  c. Thin-walled tube samples of the subgrade that should be stored in a fully supported condition and at temperatures between 5°C (40°F) and 21°C (70°F) in an environmentally protected storeroom. They shall be stored on their ends and shall always be stored in a vertical position with respect to the longitudinal axis of the tube in the same orientation as that retrieved from the field.
- *Sample Disposal?* - indicates whether or not a sample can be disposed of after testing. Generally all samples, or portions of samples that are not tested are saved until further notice.

Tables 20 through 22 and Tables 23 through 25 should be completed (layer number), checked and modified as necessary to reflect the actual samples received and then submitted to Nichols Consulting Engineers for approval before any testing commences by the state testing lab and the FHWA-LTPP testing lab, respectively.

Data Forms

Data forms and instructions for all field sampling and measurements described in this document are contained in "**Specific Pavement Studies, Materials Sampling and Testing Requirements for Experiment SPS-8, Study of Environmental Effects in the Absence of Heavy Loads**". Copies of blank data forms are included in Attachment A. These data forms must be completed at the time of the work. Completed forms shall be submitted to the designated LTPP representative.

Table 18. Samples to be retained by the **State Laboratory** (or their designee).

Sample Location Number	Sample Number	Lab Test Number	Type of Sample
Asphalt Concrete			
C10	CA10	1	4 in. Core
C11	CA11	1	4 in Core
C12	CA12	1	4 in. Core
B7	BA01	3	200 lb bulk sample
B8	BA02	3	200 lb bulk sample
B9	BA03	3	200 lb bulk sample
B10	BC04	3	5 gal bulk sample asphalt cement
B11	BC05	3	5 gal bulk sample asphalt cement
B12	BC06	3	5 gal bulk sample asphalt cement
Unbound Granular Base			
B4	BG01	1	400 lb bulk sample[1]
B5	BG02	2	400 lb bulk sample[1]
B6	BG03	2	400 lb bulk sample[1]
Subgrade (Embankment ≥ 1.2 m [4 ft]) - If thin-wall tubes available			
B1	BS01	1	400 lb bulk sample[1]
B2	BS02	2	400 lb bulk sample[1]
B3	BS03	2	400 lb bulk sample[1]
A2	TS03	3	Thin-Wall Tube
A2	TS04	3	Thin-Wall Tube
A4	TS07	3	Thin-Wall Tube
A4	TS08	3	Thin-Wall Tube
A6	TS011	3	Thin-Wall Tube
A6	TS012	3	Thin-Wall Tube

Note 1: The bulk sample is to be shipped to the participating agency laboratory where it is to be split and quartered. A 300 lb portion of the bulk sample is then to be shipped to the FHWA-LTPP Testing Contractor Laboratory for further testing.

Table 19. Samples to be Shipped to the **FHWA-LTPP Testing Contractor Laboratory.**

Sample Location Number	Sample Number	Lab Test Number	Type of Sample
Asphalt Concrete			
C1	CA01	1	4 in. Core
C2	CA02	1	4 in. Core
C3	CA03	1	4 in. Core
C4	CA04	1	4 in. Core
C5	CA05	2	4 in. Core
C6	CA06	2	4 in. Core
C7	CA07	2	4 in. Core
C8	CA08	2	4 in. Core
C9	CA09	1	4 in. Core
C13	CA13	2	4 in. Core
C14	CA14	2	4 in. Core
C15	CA15	2	4 in. Core
C16	CA16	2	4 in. Core
Unbound Granular Base			
B4	BG01	1	300 lb Bulk Sample[1]
B5	BG02	2	300 lb Bulk Sample[1]
B6	BG03	2	300 lb Bulk Sample[1]
B4	MG01	1	Moisture Content Jar Sample
B5	MG02	2	Moisture Content Jar Sample
B6	MG03	2	Moisture Content Jar Sample
Subgrade			
B1	BS01	1	300 lb Bulk Sample[1]
B2	BS02	2	300 lb Bulk Sample[1]
B3	BS03	2	300 lb Bulk Sample[1]
A1	TS01	3	Thin wall Tube Sample
A1	TS02	3	Thin wall Tube Sample
A3	TS05	3	Thin wall Tube Sample
A3	TS06	3	Thin wall Tube Sample
A5	TS09	3	Thin wall Tube Sample

Sample Location Number	Sample Number	Lab Test Number	Type of Sample
A5	TS10	3	Thin wall Tube Sample
B1	MS01	1	Moisture Content Jar Sample
B2	MS02	2	Moisture Content Jar Sample
B3	MS03	2	Moisture Content Jar Sample

Note 1: The bulk sample shall be obtained from the participating agency.

Table 20. Tracking Table of **Asphalt Concrete** Testing in the **State Laboratory.**

Layer Number (Note 1)	Layer Description Code	Layer Type	Test Section Number	Sample Location Number	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
							Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
							First	Second	Third	Fourth			
	03	AC	02	C10	CA10	1	AC01/P01	AC02/P02			Yes	(a)	No
	03	AC	02	C11	CA11	1	AC01/P01	AC02/P02			Yes	(a)	No
	03	AC	02	C12	CA12	1	AC01/P01	AC02/P02			Yes	(a)	No
	03	AC	01	B7	BA01	3	AC03/P03	AC04/P04	AC05/P05	Note 2	No	(a)	Yes
	03	AC	02	B8	BA02	3	AC03/P03	AC04/P04	AC05/P05	Note 2	No	(a)	Yes
	03	AC	02	B9	BA03	3	AC03/P03	AC04/P04	AC05/P05	Note 2	No	(a)	Yes
	03	AC	00	B10	BC01	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
	03	AC	00	B11	BC02	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
	03	AC	00	B12	BC03	3	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes

Note 1: Layer Number to be completed by testing lab after reviewing field sampling logs.
2: Run tests AE01/P21 - AE05/P25 on recovered asphalt cement and tests AG01/P11 - AG06/P14B on extracted aggregate.

Table 21. Tracking Table of **Unbound Granular Base** Testing in the **State Laboratory**.

Layer Number (Note 1)	Layer Description Code	Layer Type	Test Section Number	Sample Location Number	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
							Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
							First	Second	Third	Fourth			
	05	GB	01	B4	BG01	1	UG09/P48				No	(b)	Yes
	05	GB	01	B5	BG02	2	UG09/P48				No	(b)	Yes
	05	GB	02	B6	BG03	2	UG09/P48				No	(b)	Yes

Note 1: Layer Number to be completed by testing lab after reviewing field sampling logs.

Table 22. Tracking Table of **Subgrade** Testing in the **State Laboratory**.

Layer Number (Note 1)	Layer Description Code	Layer Type	Test Section Number	Sample Location Number	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
							Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
							First	Second	Third	Fourth			
	07	SS	01	B1	BS01	1	No Testing - Samples stored				Yes	(b)	No
	07	SS	01	B2	BS02	2	UG09/P48 - If TS03 or TS04 unavailable				Yes	(b)	No
	07	SS	02	B3	BS03	2	No Testing - Samples Stored				Yes	(b)	No
	07	SS	01	A2	TS03	3	SS04/P52	SS11/P57			No	(c)	Yes
	07	SS	01	A2	TS04	3					Yes	(c)	No
	07	SS	02	A4	TS07	3	SS04/P52	SS08/P56	SS10/P54		No	(c)	Yes
	07	SS	02	A4	TS08	3					Yes	(c)	No
	07	SS	02	A6	TS11	3	SS04/P52	SS08/P56	SS10/P54		No	(c)	Yes
	07	SS	02	A6	TS12	3					Yes	(c)	No
	07	SS	01	D1	JS01	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS02	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS03	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS04	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS05	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS06	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS07	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS08	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS09	3	SS12/P60				No	(b)	Yes
	07	SS	01	D1	JS10	3	SS12/P60				No	(b)	Yes

Layer Number (Note 1)	Layer Description Code	Layer Type	Test Section Number	Sample Location Number	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
							Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
							First	Second	Third	Fourth			
	07	SS	02	D2	JS11	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS12	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS13	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS14	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS15	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS16	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS17	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS18	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS19	3	SS12/P60				No	(b)	Yes
	07	SS	02	D2	JS20	3	SS12/P60				No	(b)	Yes

Note 1: Layer Number to be completed by testing lab after reviewing field sampling logs.

Table 23. Tracking Table of **Asphaltic Concrete** Testing in the **FHWA-LTPP Testing Contractor Laboratory**.

Layer Number (Note 1)	Layer Description Code	Layer Type	Test Section Number	Sample Location Number	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence						
							Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
							First	Second	Third	Fourth			
	03	AC	01	C1	CA01	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	01	C2	CA02	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	01	C3	CA03	1	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	01	C4	CA04	1	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
	03	AC	01	C5	CA05	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	01	C6	CA06	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	01	C7	CA07	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	01	C8	CA08	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
	03	AC	02	C9	CA09	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
	03	AC	02	C13	CA13	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	02	C14	CA14	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	02	C15	CA15	2	AC01/P01	AC02/P02	AC07/P07	AC07/P07 (ITS)	No	(a)	Yes
	03	AC	02	C16	CA16	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes

Note 1: Layer Number to be completed by testing lab after reviewing field sampling logs.

Table 24. Tracking Table of **Unbound Granular Base** Testing in the **FHWA-LTPP Testing Contractor Laboratory.**

Layer Number (Note 1)	Layer Description Code	Layer Type	Test Section Number	Sample Location Number	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence								
							Required Laboratory Tests Per Layer						Extra Sample	Sample Storage	Sample Disposed?
							First	Second	Third	Fourth	Fifth	Sixth			
	05	GB	01	B4	BG01	1	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
	05	GB	01	B5	BG02	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
	05	GB	02	B6	BG03	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG07/P46	No	(b)	Yes
	05	GB	01	B4	MG01	1	UG10/P49						No	(b)	Yes
	05	GB	01	B5	MG02	2	UG10/P49						No	(b)	Yes
	05	GB	02	B6	MG03	2	UG10/P49						No	(b)	Yes

Note 1. Layer Number to be completed by testing lab after reviewing field sampling logs.

Table 25. Tracking Table of **Subgrade** Testing in the **FHWA-LTPP Testing Contractor Laboratory.**

Layer Number (Note 1)	Layer Description Code	Layer Type	Test Section Number	Sample Location Number	Sample Number	Lab Test Number	Steps Involved in Laboratory Handling and Testing Sequence								
							Required Laboratory Tests Per Layer						Extra Sample	Sample Storage	Sample Disposed?
							First	Second	Third	Fourth	Fifth	Sixth			
	07	SS	01	B1	BS01	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46[2]	No	(b)	Yes
	07	SS	01	B2	BS02	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46[2]	No	(b)	Yes
	07	SS	02	B3	BS03	2	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55	SS07/P46[2]	No	(b)	Yes
	07	SS	01	B1	MS01	1	SS09/P49						No	(b)	Yes
	07	SS	01	B2	MS02	2	SS09/P49						No	(b)	Yes
	07	SS	02	B3	MS03	2	SS09/P49						No	(b)	Yes
	07	SS	01	A1	TS01	3	SS04/P52	SS07/P46					No	(c)	Yes
	07	SS	01	A1	TS02	3							Yes	(c)	No
	07	SS	01	A3	TS05	3	SS04/P52	SS07/P46					No	(c)	Yes
	07	SS	01	A3	TS06	3							Yes	(c)	No
	07	SS	02	A5	TS09	3	SS04/P52	SS07/P46					No	(c)	Yes
	07	SS	02	A5	TS10	3							Yes	(c)	No

Note 1: Layer Number to be completed by testing lab after reviewing field sampling logs
2. SS07/P46 only performed if Tube samples are unavailable.

ATTACHMENT A

BLANK SAMPLING AND TESTING DATA FORMS

LTPP-SPS MATERIAL SAMPLING AND FIELD TESTING SHEET NUMBER _____ OF _____

LABORATORY SHIPMENT SAMPLES INVENTORY

FIELD OPERATIONS INFORMATION FORM 1

FOR EXPERIMENT SPS-1

SHRP REGION _____ STATE _____ *STATE CODE* __ __

SPS EXPERIMENT NO __1__ *SPS PROJECT CODE* __ __

ROUTE/HIGHWAY_____ Lane_____ Direction_____ *TEST SECTION NO.* __ __

SAMPLE/TEST LOCATION: ☐ Before Section ☐ After Section *FIELD SET NO.* __

☐ Within Section

FIELD WORK COMPLETED ON ____-____-____

Note: Use additional sheets if necessary. Include summary information (Field Operations Information Form 2) and "as actual" sampling location plan sheets with this material samples inventory.

SAMPLE LOCATION	SAMPLE NUMBER	SAMPLE SIZE	SAMPLE TYPE	SAMPLE MATERIAL	SAMPLE - CONDITION	LAB*

* Enter number of laboratory, as specified below, each sample was sent to:

Lab No.(1) _____

Lab No.(2) _____

Lab No.(3) _____

GENERAL REMARKS: _____

_____

_____

CERTIFIED

_____

Field Crew Chief

Affiliation:_____

VERIFIED AND APPROVED

_____

SHRP Representative

Affiliation:_____

DATE

____-____-19__

Month- Day- Year

LTPP-SPS MATERIAL SAMPLING AND FIELD TESTING SHEET NUMBER _____ OF _____

SUMMARY OF MATERIAL SAMPLES SENT TO EACH LABORATORY

FIELD OPERATIONS INFORMATION FORM 2

FOR EXPERIMENT SPS-1

SHRP REGION _____ STATE _____ *STATE CODE* __ __

SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __

ROUTE/HIGHWAY_____ Lane_____ Direction_____ *TEST SECTION NO.* __ __

SAMPLE/TEST LOCATION: ☐ Before Section ☐ After Section *FIELD SET NO.* __

LABORATORY _____ WORK COMPLETED ON ____-____-____

NOTE: This is a summary of material samples sent to each laboratory based on the information from Field Operations Information Form 1. Complete one form for each laboratory that material samples were sent.

LAYER NO. (From Subgrade)	MATERIAL/SAMPLE TYPE		TOTAL NUMBER OF SAMPLES
_____	AC CORES (surface)	4" Diameter	_____
_____	AC MIX BULK SAMPLES:	200 pound bulk samples	_____
		5 gallon pail asphalt cement	_____
_____	AC CORES (binder)	4" Diameter	_____
_____	AC MIX BULK SAMPLES:	200 pound bulk samples	_____
		5 gallon pail asphalt cement	_____
_____	ATB CORES:	4" Diameter	_____
_____	AC Treated BULK SAMPLES:	200 pound sample - ATB	_____
		5 gallon pail asphalt cement	_____
_____	AC Treated BULK SAMPLES:	100 pound sample - PATB	_____
		5 gallon pail asphalt cement	_____
_____	UNBOUND BASE SAMPLES:	(a) BAGS (BULK)_____ (b) JARS (MOISTURE)_____	
_____	UNBOUND SUBBASE SAMPLES:	(a) BAGS (BULK)_____ (b) JARS (MOISTURE)_____	
1	SUBGRADE SAMPLES:	(a) BAGS (BULK)_____ (b) JARS (MOISTURE)_____	
		(c) THIN-WALLED TUBES_____	

GENERAL REMARKS: _____

CERTIFIED _____ Field Crew Chief
Affiliation:_____

VERIFIED AND APPROVED _____ SHRP Representative
Affiliation:_____

DATE ____-____-19___ Month- Day- Year

LTPP-SPS MATERIAL SAMPLING AND FIELD TESTING SHEET NUMBER _____ OF _____

PAVEMENT CORE LOG AT C-TYPE CORE LOCATIONS

SAMPLING DATA SHEET 2

SHRP REGION _____ STATE _____ *STATE CODE*

SPS EXPERIMENT NO _____ *SPS PROJECT CODE* _ _

ROUTE/HIGHWAY_____ Lane_____ Direction_____ *TEST SECTION NO.* _ _

SAMPLE/TEST LOCATION: ☐ Before Section ☐ After Section *FIELD SET NO.* _

OPERATOR_____ EQUIPMENT USED_____ *CORING DATE* ___-___-___

CORE BARREL: Tip Type_____ Cooling Medium_____

Note: Record information for all cores extracted from each core hole in one column in the table below. Use a separate sheet for each test section. "Depth" should be measured from the pavement surface to the bottom of the core and recorded to the nearest tenth of an inch.

CORE HOLE NUMBER						
LOCATION: (a) STATION						
(b) OFFSET (Feet, O/S)						
Core Recovered?	*YES/NO*	*YES/NO*	*YES/NO*	*YES/NO*	*YES/NO*	*YES/NO*
Replacement Core Hole No.						
Core Size (inch Diam.)	4	4	4	4	4	4
Core Sample No.						
Depth (Inches)						
Material Description						
Material Code						
Core Size (inch Diam)	4	4	4	4	4	4
Core Sample No.						
Depth (Inches)						
Material Description						
Material Code						
Core Size (inch Diam.)	4	4	4	4	4	4
Core Sample No.						
Depth (Inches)						
Material Description						
Material Code						
Core Size (inch Diam.)	4	4	4	4	4	4
Core Sample No.						
Depth (Inches)						
Material Description						
Material Code						
Remarks						

GENERAL REMARKS: _____

CERTIFIED VERIFIED AND APPROVED DATE

_____ _____ _____-_____-19___

Field Crew Chief SHRP Representative Month- Day- Year

Affiliation._____ Affiliation:_____

LTPP-SPS MATERIAL SAMPLING AND FIELD TESTING SHEET NUMBER _____ OF _____

A-TYPE BORE HOLE LOG

SAMPLING DATA SHEET 4

SHRP REGION _____ STATE _____ *STATE CODE* __ __

SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __

ROUTE/HIGHWAY_____ Lane_____ Direction_____ *TEST SECTION NO.* __ __

SAMPLE/TEST LOCATION: ☐ Before Section ☐ After Section *FIELD SET NO.* __

OPERATOR_____ EQUIPMENT USED_____ *BORING DATE*___-___-___

*LOCATION: STATION*_____ *OFFSET*_____ *feet from °/s*

*BORE HOLE NUMBER:*_____ *BORE HOLE SIZE:* _____ (inch Diam.)

Scale (Inches)	*Strata Change (Inches)*	*Sample Number* (1)	*#Blows*(2) 6"	6"	6"	*Ref? Y/N* (3)	*DLR (Inches)* (4)	*IOP* (5)	*Material Description*	*Material Code*
_____										
_10.0__										
_____										
_20.0__										
_____										
_30.0__										
_____										
_40.0__										
_____										
_50.0__										

1. Record sample numbers for splitspoon/thin-walled tube samples taken from the subgrade.

2. For splitspoon samples, record the number of blows for the first, second and third 6 inches of penetration.

3. *Refused* - If the splitspoon is refused, place a Y in the *REFUSAL* column and complete *Driving Length To Refusal* column. Refusal is defined as less than 1 inch of penetration with 100 blows.

4. *Driving Length To Refusal* - Record penetration to refusal of splitspoon from the top of the pavement surface.

5. *Inches Of Penetration* - Record from start of splitspoon sampling procedure if 100 blows is reached before one foot of penetration. If penetration exceeds 12 inches before 100 blows is reached, enter middle 6 inches plus depth of penetration into the last 6 inches when 100 blows was reached (not including seating drive); record to nearest tenth of an inch.

GENERAL REMARKS:_____

CERTIFIED

_____

Field Crew Chief

Affiliation:_____

VERIFIED AND APPROVED

_____

SHRP Representative

Affiliation:_____

DATE

_____-_____-19__

Month- Day- Year

LTPP-SPS MATERIAL SAMPLING AND FIELD TESTING

IN SITU DENSITY AND MOISTURE TESTS

SAMPLING DATA SHEET 8

SHEET NUMBER _____ OF _____

SHRP REGION _____ STATE _____ *STATE CODE* __

SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __

ROUTE/HIGHWAY_____ Lane_____ Direction_____ *TEST SECTION NO.* __

SAMPLE/TEST LOCATION: ☐ Before Section ☐ After Section *FIELD SET NO.* __

☐ Within Section

OPERATOR_____ *NUCLEAR DENSITY GAUGE I.D.*_____ *TEST DATE*__-__-__

*LOCATION: STATION*_____ *OFFSET*_____*feet from °/s*

*TEST PIT NO:*_____ DATE OF LAST MAJOR CALIBRATION__-__-__

Note: Use additional sheets if necessary

DEPTH FROM SURFACE TO THE TOP OF THE LAYER, INCHES (From plans)						
LAYER DESCRIPTION						
MATERIAL TYPE: (Unbound-G Other-T)						
IN SITU DENSITY, pcf 1						
2						
3						
(AASHTO T238-86) 4						
AVERAGE						
Method (A,B,or C)						
Rod Depth, inches						
IN SITU MOISTURE CONTENT, % 1						
2						
3						
(AASHTO T239-86) 4						
AVERAGE						

GENERAL REMARKS:_____

CERTIFIED _____ Field Crew Chief

Affiliation:_____

VERIFIED AND APPROVED _____ SHRP Representative

Affiliation:_____

DATE ____-____-19__ Month- Day- Year

LTPP-SPS MATERIAL SAMPLING AND FIELD TESTING SHEET NUMBER _____ OF _____

SAMPLING UNCOMPACTED BITUMINOUS PAVING MIXTURES

SAMPLING DATA SHEET 10

SHRP REGION _____ STATE _____ *STATE CODE* __ __

SPS EXPERIMENT NUMBER _____ *SPS PROJECT CODE* __ __

ROUTE/HIGHWAY_____ Lane_____ Direction_____ *TEST SECTION NO.* __ __

FIELD SET NO. __

PERSON PERFORMING SAMPLING

NAME _____ EMPLOYER _____

TITLE _____

MIX PLANT

PLANT NAME _____

PLANT LOCATION _____

PLANT TYPE Batch..... 1 Drum..... 2 Other (Specify)..... 3 [__]

DESCRIPTION OF MIX PLANT _____

MANUFACTURER OF ASPHALT PLANT _____

MODEL NUMBER _____

BATCH SIZE _____

SAMPLING LOCATION [__]

Conveyor Belt..... 1 Stockpile..... 2 Haul Truck..... 3 Funnel Device..... 4
Roadway Prior to Compaction ..... 5 Station __ + __ __ Offset ____ (feet from O/S)
Other..... 6 (specify) _____

MIX TYPE "Virgin" Asphalt Concrete ..... 1 Recycled Asphalt Concrete..... 2 [__]

LAYER TYPE [__]

Rut Level-Up..... 1 Mill Replacement..... 2 Binder Course..... 3
Surface Course..... 4 Surface Friction Layer..... 5

SAMPLE TYPE DESIGNATION [__ __ __ __]

SAMPLE NUMBER [__ __ __ __]

APPROXIMATE SAMPLE SIZE (lbs) __ __ __

DATE SAMPLED (Month - Day - Year) [__ __ - __ __ - __ __]

LOCATION SAMPLE SHIPPED TO _____

DATE SHIPPED (Month-Day-Year) [__ __ - __ __ - __ __]

GENERAL REMARKS: _____

_____

_____

CERTIFIED VERIFIED AND APPROVED DATE

_____ _____ ____-____-19__

Field Crew Chief SHRP Representative Month- Day- Year

Affiliation:_____ Affiliation:_____

LTPP-SPS MATERIAL SAMPLING AND FIELD TESTING SHEET NUMBER _____ OF _____

BULK SAMPLING OF SUBGRADE AND UNBOUND GRANULAR MATERIALS

SAMPLING DATA SHEET 12

SHRP REGION _____ STATE _____ *STATE CODE* __ __

SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __

ROUTE/HIGHWAY_____ Lane_____ Direction_____ *TEST SECTION NO.* __ __

SAMPLE/TEST LOCATION: ☐ Before Section ☐ After Section *FIELD SET NO.* 1

TECHNICIAN_____ EQUIPMENT _____ *EXPLORATION DATE*___-___-___

*LOCATION: STATION*_____ *OFFSET*_____*feet from °/s*

*SAMPLING LOCATION NUMBER*_____

PIT SIZE: (a) *Length*_____feet (b) *Width*_____feet

LAYER NUMBER:_____ (SUBGRADE _____ GRADED AGGREGATE BASE _____)

	Scale (Inches)	*Strata Change (Inches)*	*Moisture Sample No.*	*Bulk Sample No.*	*Material Description*	*Material Code*
4						
8						
12						
16						

GENERAL REMARKS:_____

_____

CERTIFIED

_____

Field Crew Chief

Affiliation:_____

VERIFIED AND APPROVED

_____

SHRP Representative

Affiliation:_____

DATE

_____-_____-19___

Month- Day- Year

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
AC CORE EXAMINATION AND THICKNESS
LAB DATA SHEET T01A

SHEET____OF____

ASPHALT CONCRETE LAYER (ASPHALTIC CONCRETE PROPERTIES)
SHRP TEST DESIGNATION AC01/SHRP PROTOCOL P01

(This form is to be used to describe the entire AC core only)
(Treated base/subbase portions of the cores should be described on Form T31)

LABORATORY PERFORMING TEST:_____
LABORATORY IDENTIFICATION CODE: __ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __

1. *FIELD LAYER NUMBER (FROM FIELD OPERATIONS FORM 2)* __			
2. *TEST SECTION NO.*	__ __	__ __	__ __
3. *SAMPLING AREA NO.(SA-)*	__ __	__ __	__ __
4. *SHRP LABORATORY TEST NUMBER*	__	__	__
5. *LOCATION NUMBER*	__ __ __	__ __ __	__ __ __
6. *SHRP SAMPLE NUMBER*	__ __ __ __	__ __ __ __	__ __ __ __
7. *AVERAGE THICKNESS* (L) INCHES*	__ __.__	__ __.__	__ __.__
8. *VISUAL EXAMINATION*			
(a) CODE (Section 7.3.(b), Protocol P01)	__ __ __ __ __ __	__ __ __ __ __ __	__ __ __ __ __ __
(b) NOTE	_____ _____ _____	_____ _____ _____	_____ _____ _____
9. *COMMENTS*			
(a) CODE (Section 7.4 Protocol P01)	__ __ __ __ __ __	__ __ __ __ __ __	__ __ __ __ __ __
(b) NOTE	_____ _____	_____ _____	_____ _____
10. *TEST DATE*	__-__-__	__-__-__	__-__-__

* Measure AC core thickness prior to sawing from other bonded layers.

GENERAL REMARKS:_____

SUBMITTED BY, DATE

_____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

_____
SHRP REPRESENTATIVE
Affiliation_____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
AC CORE EXAMINATION AND THICKNESS
LAB DATA SHEET T01B

SHEET____OF____

ASPHALT CONCRETE LAYER (ASPHALTIC CONCRETE PROPERTIES)
SHRP TEST DESIGNATION AC01/SHRP PROTOCOL P01

(This form is to be used to report detailed information as described in Attachment B to Protocol P01)

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: __ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO ____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __

1. *(FIELD) LAYER NUMBER* (FROM FORM T01A)	__		
2. *TEST SECTION NO.*	__ __	__ __	__ __
3. *SAMPLING AREA NO. (SA-)*	__ __	__ __	__ __
4. *SHRP LABORATORY TEST NUMBER*	__	__	__
5. *LOCATION NUMBER*	__ __ __	__ __ __	__ __ __
6. *SHRP SAMPLE NUMBER*	__ __ __ __	__ __ __ __	__ __ __ __

7. *LAYER INFORMATION* (Start layer number from the bottom layer within the AC Core)	*LAYER NUMBER*	*LAYER DES.*	*LAYER THICKNESS (INCHES)*	*LAYER NUMBER*	*LAYER DES.*	*LAYER THICKNESS (INCHES)*	*LAYER NUMBER*	*LAYER DES.*	*LAYER THICKNESS (INCHES)*
	__*	__ __	__ __.__	__*	__ __	__ __.__	__*	__ __	__ __.__
	__	__ __	__ __.__	__	__ __	__ __.__	__	__ __	__ __.__
	__	__ __	__ __.__	__	__ __	__ __.__	__	__ __	__ __.__
	__	__ __	__ __.__	__	__ __	__ __.__	__	__ __	__ __.__
	__	__ __	__ __.__	__	__ __	__ __.__	__	__ __	__ __.__
8. *COMMENTS*									
(a) CODE	__ __	__ __	__ __	__ __	__ __	__ __	__ __	__ __	__ __
(b) NOTE	__ __	__ __	__ __	__ __	__ __	__ __	__ __	__ __	__ __
	_____			_____			_____		
	_____			_____			_____		
9. *TEST DATE*	__-__-__			__-__-__			__-__-__		

* Same layer number as entered in item 1 (Field layer number) if there is no other discrepancy in layers identified in the field and laboratory.

GENERAL REMARKS: _____

SUBMITTED BY, DATE

_____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

_____
SHRP REPRESENTATIVE
Affiliation_____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
BULK SPECIFIC GRAVITY
LAB DATA SHEET T02

SHEET____OF____

ASPHALT CONCRETE LAYER (ASPHALTIC CONCRETE PROPERTIES)
SHRP TEST DESIGNATION AC02/SHRP PROTOCOL P02

LABORATORY PERFORMING TEST: _____
*LABORATORY IDENTIFICATION CODE:*__ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO ____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __

1. *LAYER NUMBER* (FROM LAB SHEET L04 AND FORM T01B) __

2. *TEST SECTION NO.*	__ __	__ __	__ __
3. *SAMPLING AREA NO. (SA-)*	__ __	__ __	__ __
4. *SHRP LABORATORY TEST NUMBER*	__	__	__
5. *LOCATION NUMBER*	__ __ __	__ __ __	__ __ __
6. *SHRP SAMPLE NUMBER*	__ __ __ __	__ __ __ __	__ __ __ __
7. *BULK SPECIFIC GRAVITY (BSG)*	__ . __ __ __	__ . __ __ __	__ . __ __ __
8. *WATER ABSORBED, %*	__ __%	__ __%	__ __%
9. *TEST ON PARAFFIN COATED SPECIMEN (YES/NO)*	___	___	___
10. *BSG (PARAFFIN COATED SPECIMEN)*	__ . __ __ __	__ . __ __ __	__ . __ __ __
11. *COMMENTS*			
(a) CODE	__ __ __ __ __ __	__ __ __ __ __ __	__ __ __ __ __ __
(b) NOTE	_____ _____	_____ _____	_____ _____
12. *TEST DATE*	__ __ - __ __ - __ __	__ __ - __ __ - __ __	__ __ - __ __ - __ __

(DO NOT USE THE TEST RESULT WITH WATER ABSORPTION OF MORE THAN 2 PERCENT)
GENERAL REMARKS: _____

SUBMITTED BY, DATE

_____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

_____
SHRP REPRESENTATIVE
Affiliation_____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
MAXIMUM SPECIFIC GRAVITY
LAB DATA SHEET T03

SHEET____OF____

ASPHALTIC CONCRETE LAYER (ASPHALTIC CONCRETE PROPERTIES)
SHRP TEST DESIGNATION AC03/SHRP PROTOCOL P03

LABORATORY PERFORMING TEST: _____
*LABORATORY IDENTIFICATION CODE:*__ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __

1. *LAYER NUMBER* (FROM LAB SHEET L04 AND FORM T01B) __

2. *TEST SECTION NO.*	__ __	__ __	__ __
3. *SAMPLING AREA NO. (SA-)*	__ __	__ __	__ __
4. *SHRP LABORATORY TEST NUMBER*	__	__	__
5. *LOCATION NUMBER*	__ __ __	__ __ __	__ __ __
6. *SHRP SAMPLE NUMBER*	__ __ __ __	__ __ __ __	__ __ __
7. *MAXIMUM SPECIFIC GRAVITY (GMM)*	__ . __ __ __	__ . __ __ __	__ . __ __ __
8. *COMMENTS* (a) *CODE*	__ __ __ __ __ __ __ __ __ __ __ __	__ __ __ __ __ __ __ __ __ __ __ __	__ __ __ __ __ __ __ __ __ __ __ __
(b) *NOTE*	_____ _____	_____ _____	_____ _____
9. *TEST DATE*	__ __ . __ __ . __ __	__ __ . __ __ . __ __	__ __ . __ __ . __ __

GENERAL REMARKS: _____

SUBMITTED BY, DATE

_____
ABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

_____
SHRP REPRESENTATIVE
Affiliation_____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
ASPHALT CONTENT (QUANTITATIVE EXTRACTION)
LAB DATA SHEET T04

SHEET ____OF____

ASPHALTIC CONCRETE LAYER (ASPHALTIC CONCRETE PROPERTIES)
SHRP TEST DESIGNATION AC04/SHRP PROTOCOL P04

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: __ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO ____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __

1. *LAYER NUMBER* (FROM LAB SHEET L04 AND FORM T01B) __

2. *TEST SECTION NO.*	__ __	__ __	__ __
3. *SAMPLING AREA NO. (SA-)*	__ __	__ __	__ __
4. *SHRP LABORATORY TEST NUMBER*	__	__	__
. *LOCATION NUMBER*	__ __ __	__ __ __	__ __ __
6. *SHRP SAMPLE NUMBER*	__ __ __ __	__ __ __ __	__ __ __ __
7. *ASPHALT CONTENT (BC)*	__ __ . __ %	__ __ . __ %	__ __ . __ %
8. *COMMENTS*			
(a) *CODE*	__ __ __ __ __ __	__ __ __ __ __ __	__ __ __ __ __ __
(b) *NOTE*	_____	_____	_____
9. *TEST DATE*	__ __ . __ __ . __ __	__ __ . __ __ . __ __	__ __ . __ __ . __ __

GENERAL REMARKS: _____

SUBMITTED BY, DATE

_____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

_____
SHRP REPRESENTATIVE
Affiliation_____

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
MOISTURE SUSCEPTIBILITY
LAB DATA SHEET T05

SHEET NO. ___ OF ___

ASPHALT CONCRETE LAYER (ASPHALTIC CONCRETE PROPERTIES)
SHRP TEST DESIGNATION AC05/SHRP PROTOCOL P05

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION _____ STATE _____
SPS EXPERIMENT NO ____
SAMPLED BY: _____
DATE SAMPLED: _ _-_ _-19_ _

STATE CODE _ _
SPS PROJECT CODE _ _
FIELD SET NO. _

1. LAYER NUMBER ____
3. TEST SECTION NUMBER _ _
5. SAMPLING AREA NUMBER (SA-) _ _
7. METHOD OF COMPACTION _____

2. SHRP LABORATORY TEST NUMBER _
4. LOCATION NUMBER _ _ _
6. MAX. SPECIFIC GRAVITY OF MIX _._ _ _

8. TEST RESULTS

DATA ITEM	UNCONDITIONED (DRY)			CONDITIONED		
SHRP SAMPLE NO.	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _	_ _ _ _
AVG. SPEC. HGT.	_ _ _._	_ _ _._	_ _ _._	_ _ _._	_ _ _._	_ _ _._
AVG. SPEC. DIAM.	_ _ _._	_ _ _._	_ _ _._	_ _ _._	_ _ _._	_ _ _._
BSG AFTER MOLDING	_._ _ _	_._ _ _	_._ _ _	_._ _ _	_._ _ _	_._ _ _
% AIR VOIDS	_ _._	_ _._	_ _._	_ _._	_ _._	_ _._
BSG AFTER VAC. SAT.				_._ _ _	_._ _ _	_._ _ _
MAX. LOAD	_ _ _ _ _.	_ _ _ _ _.	_ _ _ _ _.	_ _ _ _ _.	_ _ _ _ _.	_ _ _ _ _.

P05-14

3 *ST RESULT (continued)*

SHEET NO. ___ O ___

DATA ITEM	UNCONDITIONED (DRY)			CONDITIONED		
INDIRECT TENS. STR.	____.	____.	____.	____.	____.	____.
AVG. INDIRECT TENS. STR.	____.			____.		
STD. INDIRECT TENS. STR.	___.			___.		
TENSILE STRENGTH RATIO	_.__					
RELATIVE VAR. IN STR.	___					
COARSE AGG. STRIPPED,	[illegible]			___.	___.	___.
FINE AGG. STRIPPED, %	[illegible]			___.	___.	___.
COMMENT CODES	__, __, __, __, __, __					
NOTE	_____					
TEST DATE	_____	_____	_____	_____	_____	_____

GENERAL REMARKS: _____

SUBMITTED BY, DATE

_____

LABORATORY CHIEF

Affiliation _____

CHECKED AND APPROVED, DATE

_____

Affiliation _____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING — SHEET NO _____ OF _____

LABORATORY MATERIAL TEST DATA

SPECIFIC GRAVITY AND ABSORPTION OF EXTRACTED COARSE AGGREGATE

LAB DATA SHEET T11

ASPHALT CONCRETE LAYER (EXTRACTED AGGREGATE)

SHRP TEST DESIGNATION: AG01/SHRP PROTOCOL P11

LABORATORY PERFORMING TEST: _____

LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION _____ STATE _____ *STATE CODE* _ _

SPS EXPERIMENT NO _____ *SPS PROJECT CODE* _ _

SAMPLED BY: _____ *TEST SECTION NO.* _ _

DATE SAMPLED: _ _-_ _-19_ _ *FIELD SET NO.* _

SAMPLING AREA No: SA- _ _

1. *LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)* _

2. *LOCATION NUMBER* _ _ _

3. *SHRP LABORATORY TEST NUMBER* _

4. *SHRP SAMPLE NUMBER* _ _ _ _

5. *WEIGHT OF TEST SAMPLE, grams* _ _ _ _._

6. *WEIGHT OF OVEN DRY TEST SAMPLE IN AIR (A), grams* _ _ _ _._

7. *WEIGHT OF SSD TEST SAMPLE IN AIR (B), grams* _ _ _ _._

8. *WEIGHT OF SSD TEST SAMPLE IN WATER (C), grams* _ _ _ _._

9. *BULK SPECIFIC GRAVITY OF COARSE AGGREGATE* _ _._ _

10. *ABSORPTION OF COARSE AGGREGATE* _ _._

11. *COMMENTS*

(a) *CODE* _ _ _ _ _ _ _ _ _ _ _ _

(b) *NOTE* _____

12. *TEST DATE* _ _-_ _-19_ _

GENERAL REMARKS: _____

CERTIFIED _____ Laboratory Chief Affiliation: _____

VERIFIED AND APPROVED _____ SHRP Representative Affiliation: _____

DATE _____-_____-19___ Month- Day- Year

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING — SHEET NO _____ OF _____

LABORATORY MATERIAL TEST DATA
SPECIFIC GRAVITY AND ABSORPTION OF EXTRACTED FINE AGGREGATE
LAB DATA SHEET T12

ASPHALT CONCRETE LAYER (EXTRACTED AGGREGATE)
SHRP TEST DESIGNATION: AG02/SHRP PROTOCOL P12

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION _____ STATE _____ *STATE CODE* _ _
SPS EXPERIMENT NO _____ *SPS PROJECT CODE* _ _
SAMPLED BY: _____ *TEST SECTION NO.* _ _
DATE SAMPLED: _ _-_ _-19_ _ *FIELD SET NO.* _
SAMPLING AREA No: SA- _ _

1.	*LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)*	_
2.	*LOCATION NUMBER*	_ _ _
3.	*SHRP LABORATORY TEST NUMBER*	_
4.	*SHRP SAMPLE NUMBER*	_ _ _ _
5.	*WEIGHT OF TEST SAMPLE, grams*	_ _ _ _.__
6.	*WEIGHT OF OVEN DRY TEST SAMPLE IN AIR (A), grams*	_ _ _ _
7.	*WEIGHT OF PYCNOMETER FILLED WITH WATER (B), grams*	_ _ _ _.__
8.	*WEIGHT OF PYCNOMETER WITH SPECIMEN AND WATER TO CALIBRATION MARK (C), grams*	_ _ _ _.__
9.	*WEIGHT OF SSD SPECIMEN (S), grams*	_ _ _ _.__
10.	*BULK SPECIFIC GRAVITY OF FINE EXTRACTED AGGREGATE*	_ _.__
11.	*PERCENT ABSORPTION OF FINE AGGREGATE*	_ _.__
12.	*COMMENTS*	
	(a) CODE	_ _ _ _ _ _ _ _ _ _ _ _
	(b) NOTE	_____
13.	*TEST DATE*	_ _-_ _-19_ _

GENERAL REMARKS: _____

CERTIFIED _____ Laboratory Chief
Affiliation: _____

VERIFIED AND APPROVED _____ SHRP Representative
Affiliation: _____

DATE _____-_____-19_ Month- Day- Y

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
GRADATION OF AGGREGATE
LAB DATA SHEET T14

SHEET ____ OF ____

ASPHALTIC CONCRETE LAYER (EXTRACTED AGGREGATE)
SHRP TEST DESIGNATION AG04/SHRP PROTOCOL P14

ABORATORY PERFORMING TEST: _____
ABORATORY IDENTIFICATION CODE: __ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE*
PS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __
AMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __

. *LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)* __			
. *TEST SECTION NO.*	__ __	__ __	__ __
3. *SAMPLING AREA NO. (SA-)*	__ __	__ __	__ __
. *SHRP LABORATORY TEST NUMBER*	_	_	_
5. *LOCATION NUMBER*	__ __ __	__ __ __	__ __ __
. *SHRP SAMPLE NUMBER*	__ __ __ __	__ __ __ __	__ __ __ __
7. *GRADATION, % PASSING EACH SIEVE SIZE*			
Standard (mm)			
1 1/2 (37.5)	__ __ __.	__ __ __.	__ __ __.
1 (25.0)	__ __ __.	__ __ __.	__ __ __.
3/4 (19.0)	__ __ __.	__ __ __.	__ __ __.
1/2 (12.5)	__ __ __.	__ __ __.	__ __ __.
3/8 (9.5)	__ __ __.	__ __ __.	__ __ __.
#4 (4.75)	__ __ __.	__ __ __.	__ __ __.
#10 (2.00)	__ __.	__ __.	__ __.
#40 (0.425)	__ __.	__ __.	__ __.
#80 (0.180)	__ __.	__ __.	__ __.
#200 (0.075)	__ __.__	__ __.__	__ __.__
RIMARY GEOLOGICAL CLASSIFICATION CODE	__ __	__ __	__ __
ECONDARY GEOLOGICAL CLASSIFICATION CODE (A)	__ __	__ __	__ __
ECONDARY GEOLOGICAL CLASSIFICATION CODE (B)	__ __	__ __	__ __
. *COMMENTS*			
(a) CODE	__ __ __ __ __ __	__ __ __ __ __ __	__ __ __ __ __ __
	__ __ __ __ __ __	__ __ __ __ __ __	__ __ __ __ __ __
(b) NOTE	_____	_____	_____
	_____	_____	_____
?. *TEST DATE*	__ __-__ __-__ __	__ __-__ __-__ __	__ __-__ __-__ __

ENERAL REMARKS: _____

UBMITTED BY, DATE

ABORATORY CHIEF
ffiliation_____

CHECKED AND APPROVED, DATE

SHRP REPRESENTATIVE
Affiliation_____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
RECOVERY OF ASPHALT FROM SOLUTION BY ABSON METHOD
LAB DATA SHEET T21

SHEET NO _____ OF _____

ASPHALT CONCRETE LAYER (ASPHALT CEMENT PROPERTIES)
SHRP TEST DESIGNATION: AE01/SHRP PROTOCOL P21

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION _____ STATE _____
SPS EXPERIMENT NO _____
SAMPLED BY: _____
DATE SAMPLED: _ _-_ _-19_ _

STATE CODE _ _
SPS PROJECT CODE _ _
TEST SECTION NO. _ _
FIELD SET NO. _
SAMPLING AREA No: SA- _____

1. *LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)* _
2. *LOCATION NUMBER* _ _ _
3. *SHRP LABORATORY TEST NUMBER* _
4. *SHRP SAMPLE NUMBER* _ _ _ _
5. *MASS OF RECOVERED BITUMEN (grams)* _ _ _._
6. *ASH CONTENT OF BITUMEN (percent)* _._
7. *COMMENTS*
   (a) *CODE* _ _ _ _ _ _ _ _ _ _ _ _
   (b) *NOTE* _____
8. *TEST DATE* _ _-_ _-19_ _

GENERAL REMARKS: _____

CERTIFIED
_____
Laboratory Chief
Affiliation: _____

VERIFIED AND APPROVED
_____
SHRP Representative
Affiliation: _____

DATE
_____-_____-19___
Month- Day- Year

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
PENETRATION OF EXTRACTED ASPHALT CEMENT AT 77 AND 115°F
TEST DATA SHEET T22

SHEET NO _____ OF _____

ASPHALT CONCRETE LAYER (ASPHALT CEMENT PROPERTIES)
SHRP TEST DESIGNATION: AE02/SHRP PROTOCOL P22

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION _____ STATE _____
SPS EXPERIMENT NO _____
SAMPLED BY: _____
DATE SAMPLED: _ _-_ _-19_ _

STATE CODE _ _
SPS PROJECT CODE _ _
TEST SECTION NO. _ _
FIELD SET NO. _ _
SAMPLING AREA No: SA- _ _

1. *LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)* _
2. *LOCATION NUMBER* _ _ _
3. *SHRP LABORATORY TEST NUMBER* _
4. *SHRP SAMPLE NUMBER* _ _ _ _
5. *PENETRATION @ 77°F (millimeters)* _ _ _.
6. *PENETRATION @ 115°F (millimeters)* _ _ _.
7. *PENETRATION INDEX* _.__
8. *COMMENTS*
   (a) *CODE* _ _ _ _ _ _ _ _ _ _ _ _
   (b) *NOTE* _____
9. *TEST DATE* _ _-_ _-19_ _

GENERAL REMARKS: _____

CERTIFIED _____
Laboratory Chief
Affiliation: _____

VERIFIED AND APPROVED _____
SHRP Representative
Affiliation: _____

DATE _____-_____-19___
Month- Day- Year

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
SPECIFIC GRAVITY OF EXTRACTED ASPHALT CEMENT
TEST DATA SHEET T23

SHEET NO _____ OF _____

ASPHALT CONCRETE LAYER (ASPHALT CEMENT PROPERTIES)
SHRP TEST DESIGNATION: AE03/SHRP PROTOCOL P23

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION _____ STATE _____
SPS EXPERIMENT NO _____
SAMPLED BY: _____
DATE SAMPLED: _ _-_ _-19_ _

STATE CODE _ _
SPS PROJECT CODE _ _
TEST SECTION NO. _ _
FIELD SET NO. _
SAMPLING AREA No: SA- _____

1. *LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)* _
2. *LOCATION NUMBER* _ _ _
3. *SHRP LABORATORY TEST NUMBER* -
4. *SHRP SAMPLE NUMBER* _ _ _ _
5. *SPECIFIC GRAVITY* _._ _ _ _
6. *COMMENTS*
   (a) *CODE* _ _ _ _ _ _ _ _ _ _ _ _
   (b) *NOTE* _____
7. *TEST DATE* _ _-_ _-19_ _

GENERAL REMARKS: _____

CERTIFIED
_____
Laboratory Chief
Affiliation: _____

VERIFIED AND APPROVED
_____
SHRP Representative
Affiliation: _____

DATE
_____-_____-19__
Month- Day- Yea

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING — SHEET NO _____ OF _____

LABORATORY MATERIAL TEST DATA
VISCOSITY OF ASPHALT CEMENT AT 77°F
TEST DATA SHEET T24

ASPHALT CONCRETE LAYER (ASPHALT CEMENT PROPERTIES)
SHRP TEST DESIGNATION: AE04/SHRP PROTOCOL P24

LABORATORY PERFORMING TEST: _____

LABORATORY IDENTIFICATION CODE: __ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __

SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __

SAMPLED BY: _____ *TEST SECTION NO.* __ __

DATE SAMPLED: __ __-__ __-19__ __ *FIELD SET NO.* __

SAMPLING AREA No: SA- _____

1.	*LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)*	__
2.	*LOCATION NUMBER*	__ __ __
3.	*SHRP LABORATORY TEST NUMBER*	__
4.	*SHRP SAMPLE NUMBER*	__ __ __ __
5.	*TEST TEMPERATURE, (°F)*	__ __ . __ __
6.	*LOAD: 100 GRAMS*	
	(a) *VISCOSITY, (megapoise)*	__ __.__ __ __
	(b) *SHEAR RATE, (s^{-1})*	__ . __ __
7.	*LOAD: 300 GRAMS*	
	(a) *VISCOSITY, (megapoise)*	__ __.__ __ __
	(b) *SHEAR RATE, (s^{-1})*	__ . __ __
8.	*LOAD: 1000 GRAMS*	
	(a) *VISCOSITY, (megapoise)*	__ __.__ __ __
	(b) *SHEAR RATE, (s^{-1})*	__ . __ __
9.	*LOAD: 3000 GRAMS*	
	(a) *VISCOSITY, (megapoise)*	__ __.__ __ __
	(b) *SHEAR RATE, (s^{-1})*	__ . __ __
10.	*LOAD: 10000 GRAMS*	
	(a) *VISCOSITY, (megapoise)*	__ __.__ __ __
	(b) *SHEAR RATE, (s^{-1})*	__ . __ __
11.	*FRACTURE (only to be completed if fracture of specimen occurs)*	
	(a) *LOAD, grams*	__ __ __ __ __.
	(b) *SHEAR STRESS, dynes/cm²*	__ __.__ __ __ __ __
12.	*COMMENTS*	
	(a) *CODE*	__ __ __ __ __ __ __ __ __ __
	(b) *NOTE*	_____
13.	*TEST DATE*	__ __-__ __-19__ __

GENERAL REMARKS: _____

_____

_____

CERTIFIED _____ Laboratory Chief
Affiliation: _____

VERIFIED AND APPROVED _____ SHRP Representative
Affiliation: _____

DATE _____-____-19___ Month- Day- Year

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
KINEMATIC AND ABSOLUTE VISCOSITY
TEST DATA SHEET T25

SHEET NO _____ OF _____

ASPHALT CONCRETE LAYER (ASPHALT CEMENT PROPERTIES)
SHRP TEST DESIGNATION: AE05/SHRP PROTOCOL P25

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION _____ STATE _____
SPS EXPERIMENT NO _____
SAMPLED BY: _____
DATE SAMPLED: _ _-_ _-19_ _

STATE CODE _ _
SPS PROJECT CODE _ _
TEST SECTION NO. _ _
FIELD SET NO. _
SAMPLING AREA No: SA- _____

1. *LAYER NUMBER (FROM LAB SHEET L04 AND FORM T01B)* _
2. *LOCATION NUMBER* _ _ _
3. *SHRP LABORATORY TEST NUMBER* _
4. *SHRP SAMPLE NUMBER* _ _ _ _
5. *KINEMATIC VISCOSITY*
   (a) *CALIBRATION CONSTANT (C), centistokes/sec* _ _ _._ _
   (b) *EFFLUX TIME (s), seconds* _ _ _._ _
   (c) *KINEMATIC VISCOSITY @ 275 °F, centistokes* _ _ _ _ _ _.
6. *ABSOLUTE VISCOSITY*
   (a) *CALIBRATION FACTOR (K), poises/sec* _ _ _ _._ _
   (b) *FLOW TIME, seconds* _ _ _._ _
   (c) *VACUUM PRESSURE, In. of Hg* _ _ _._ _
   (d) *ABSOLUTE VISCOSITY @ 140 °F, poises* _ _ _ _ _ _.
7. *COMMENTS*
   (a) *CODE* _ _ _ _ _ _ _ _ _ _ _ _
   (b) *NOTE* _____
8. *TEST DATE* _ _-_ _-19_ _

GENERAL REMARKS: _____

CERTIFIED _____
Laboratory Chief
Affiliation: _____

VERIFIED AND APPROVED _____
SHRP Representative
Affiliation: _____

DATE _____-_____-19___
Month- Day- Year

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
PERMEABILITY
LAB DATA SHEET T48

SHEET____OF____

UNBOUND GRANULAR BASE/SUBBASE LAYERS
SHRP TEST DESIGNATION UG09/SHRP PROTOCOL P48

LABORATORY PERFORMING TEST:_____
*LABORATORY IDENTIFICATION CODE:*__ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __

LAYER MATERIAL (CIRCLE ONE): BASE/SUBBASE

1. *LAYER NUMBER* (FROM LAB SHEET L04) __

2. *TEST SECTION NO.* __ __

3. *SAMPLING AREA NO. (SA-)* __ __

4. *SHRP LABORATORY TEST NUMBER* __

5. *LOCATION NUMBER* __ __ __

6. *SHRP SAMPLE NUMBER* __ __ __ __

7. *TEST RESULTS*
   (a) *INITIAL MOISTURE CONTENT* (W_i), % __ __.
   (b) *FINAL MOISTURE CONTENT* (W_f), % __ __.
   (c) *INITIAL DRY DENSITY* (DD_i), pcf __ __ __.
   (d) *FINAL DRY DENSITY* (DD_f), pcf __ __ __.
   (e) *HYDRAULIC GRADIENT* (H/L) __ __ __.
   (f) *AVERAGE HYDRAULIC CONDUCTIVITY* (R), cm/sec __.__ E- __

8. *COMMENTS*
   (a) *CODE* __ __ __ __ __ __
   (b) *NOTE* __ __ __ __ __ __

9. *TEST DATE* __ __-__ __-__ __

GENERAL REMARKS:_____

SUBMITTED BY, DATE

LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

SHRP REPRESENTATIVE
Affiliation_____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
UNCONFINED COMPRESSIVE STRENGTH OF SUBGRADE SOIL
LAB DATA SHEET T54

SHEET____OF____

SUBGRADE SOILS
SHRP TEST DESIGNATION SS10/SHRP PROTOCOL P54

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: __ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO ____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __ __
DATE SAMPLED: __ __-__ __-19__ __ *SAMPLING AREA NO.:SA-* ____

1. *LAYER NUMBER* ____
2. *TEST SECTION NUMBER* __ __
3. *SHRP LABORATORY TEST NUMBER* __
4. *LOCATION NUMBER* __ __ __
5. *SHRP SAMPLE NUMBER* __ __ __ __
6. *TEST RESULTS*

(a)	*SPECIMEN HEIGHT, inches*	__ __.__ __
(b)	*SPECIMEN DIAMETER, inches*	__ __.__ __
(c)	*AVERAGE CROSS-SECTIONAL AREA, in²*	__ __.__ __
(d)	*MOISTURE CONTENT, %*	__ __.__
(e)	*DRY DENSITY, pcf*	__ __ __.
(f)	*UNCONFINED COMPRESSED STRENGTH (q_u), psi*	__ __ __.
(g)	*LENGTH-TO-DIAMETER RATIO (L/D)*	__.__
(h)	*AVERAGE STRAIN AT FAILURE, %*	__ __.__
(i)	*AVERAGE RATE OF STRAIN TO FAILURE, %/min*	__.__

7. *COMMENTS*

(a) *CODE* __ __ __ __ __ __
(b) *NOTE* _____

8. *TEST DATE* __ __-__ __-__ __

GENERAL REMARKS: _____

SUBMITTED BY, DATE

_____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

_____
SHRP REPRESENTATIVE
Affiliation_____

********** SPS LABORATORY TESTING DATA SHEET **********

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
DENSITY OF SUBGRADE SOIL
LAB DATA SHEET T56

SHEET_____OF_____

SUBGRADE SOILS
SHRP TEST DESIGNATION SS08/SHRP PROTOCOL P56

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: __ __ __ __

SHRP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO _____ *SPS PROJECT CODE* __ __
SAMPLED BY: _____ *FIELD SET NO.* __
DATE SAMPLED: __ __-__ __-19__ __ *SAMPLING AREA NO.:SA-*_____

1. *LAYER NUMBER* _____
2. *TEST SECTION NUMBER* __ __
3. *SHRP LABORATORY TEST NUMBER* __
4. *LOCATION NUMBER* __ __ __
5. *SHRP SAMPLE NUMBER* __ __ __ __
6. *TEST RESULTS*
   - (a) *SPECIMEN HEIGHT, inches* __ __.__ __
   - (b) *SPECIMEN DIAMETER, inches* __ __.__ __
   - (c) *SPECIMEN MASS, grams* __ __ __ __ . __
   - (d) *MOISTURE CONTENT (w), %* __ __.__
   - (e) *DRY DENSITY (DD), pcf* __ __ __.
7. *COMMENTS*
   - (a) *CODE* __ __ __ __ __ __
   - (b) *NOTE* __ __ __ __ __ __
8. *TEST DATE* __ __-__ __-__ __

GENERAL REMARKS: _____

SUBMITTED BY, DATE _____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE _____
SHRP REPRESENTATIVE
Affiliation_____

SHRP-LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
PERMEABILITY
LAB DATA SHEET T57

SHEET____OF____

SUBGRADE SOILS
SHRP TEST DESIGNATION: SS11/SHRP PROTOCOL P57

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: _ _ _ _

SHRP REGION: _____ STATE: _____ *STATE CODE:*
SPS EXPERIMENT NO.: _____ *SPS PROJECT CODE:* _ _
SAMPLED BY: _____ *FIELD SET NO.:* _ _
DATE SAMPLED: _ _ - _ _ - 19_ _ *SAMPLING AREA NO.:* _
*SA-*____

1.	*LAYER NUMBER*	_ _
2.	*TEST SECTION NUMBER*	_ _
3.	*SHRP LABORATORY TEST NUMBER*	_ _
4.	*LOCATION NUMBER*	_ _
5.	*SHRP SAMPLE NUMBER*	_ _ _
6.	*SPECIMEN PARAMETERS (INITIAL)*	_ _ _ _
	(a) *MASS, GRAMS*	
	(b) *HEIGHT, INCHES*	_ _ _ . _
	(c) *DIAMETER, INCHES*	_ _ . _ _
7.	*TEST RESULTS*	_ _ . _ _
	(a) *INITIAL WATER CONTENT (W_i), %*	
	(b) *FINAL WATER CONTENT (W_f), %*	_ _.
	(c) *INITIAL DRY DENSITY (DD_i), PCF*	_ _.
	(d) *FINAL DRY DENSITY (DD_f), PCF*	_ _ _.
	(e) *TOTAL BACK PRESSURE (BP), %*	_ _ _.
	(f) *MAXIMUM EFFECTIVE STRESS, PSI*	_ _ _.
	(g) *MINIMUM EFFECTIVE STRESS, PSI*	_ _.
	(h) *MAXIMUM HYDRAULIC GRADIENT (H/L) max*	_ _.
	(i) *MINIMUM HYDRAULIC GRADIENT (H/L) min*	_ _.
	(j) *FINAL DEGREE OF SATURATION (S_f), %*	_ _.
	(k) *AVERAGE HYDRAULIC CONDUCTIVITY (R), CM/S*	_ _.
		_ _ *E-* _
8.	*SPECIMEN PARAMETERS (FINAL)*	
	(a) *MASS, GRAMS*	
	(b) *HEIGHT, INCHES*	_ _ _ . _
	(c) *DIAMETER, INCHES*	_ _ . _ _
9.	*COMMENTS*	_ _ . _ _
	(a) *CODE*	_ _ _ _ _ _ _ _ _ _ _ _
	(b) *NOTE* _____	
10.	*TEST DATE*	_ _-_ _-19 _ _

GENERAL REMARKS: _____

SUBMITTED BY, DATE

_____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE

_____
SHRP REPRESENTATIVE
Affiliation_____

********** PS LABORATORY TESTING DATA SHEET **********

LTPP LABORATORY MATERIAL HANDLING AND TESTING
LABORATORY MATERIAL TEST DATA
DETERMINING EXPANSIVE SOILS
LAB DATA SHEET T60

SHEET_____OF_____

SUBGRADE SOILS
TEST DESIGNATION SS12/PROTOCOL P60

LABORATORY PERFORMING TEST: _____
LABORATORY IDENTIFICATION CODE: __ __ __ __

LTPP REGION _____ STATE _____ *STATE CODE* __ __
SPS EXPERIMENT NO _____ *SHRP_ID* __ __ __ __
SAMPLED BY: _____ *FIELD SET NO.* __ __
DATE SAMPLED: __ __-__ __-19__ __

1. *LAYER NUMBER* (FROM LAB SHEET L05B) __ __
2. *LTPP LABORATORY TEST NUMBER* __
3. *LOCATION NUMBER* __ __ __ __ __
4. TEST RESULTS

Sample Depth, ft.	p_{40}, %	mc, %	LL	PL	PVR, in.
0-2	__ __.__	__ __.__	__ __	__ __	__.__ __
2-4	__ __.__	__ __.__	__ __	__ __	__.__ __
4-6	__ __.__	__ __.__	__ __	__ __	__.__ __
6-8	__ __.__	__ __.__	__ __	__ __	__.__ __
8-10	__ __.__	__ __.__	__ __	__ __	__.__ __
10-12	__ __.__	__ __.__	__ __	__ __	__.__ __
12-14	__ __.__	__ __.__	__ __	__ __	__.__ __
14-16	__ __.__	__ __.__	__ __	__ __	__.__ __
16-18	__ __.__	__ __.__	__ __	__ __	__.__ __
18-20	__ __.__	__ __.__	__ __	__ __	__.__ __

5. *TOTAL PVR, inches* __ __.__ __
6. *COMMENTS*
   (a) Code: __ __ __ __ __ __ __ __ __ __ __ __
   (b) Note: _____
7. *TEST DATE* __ __-__ __-__ __

GENERAL REMARKS: _____

SUBMITTED BY, DATE _____
LABORATORY CHIEF
Affiliation_____

CHECKED AND APPROVED, DATE _____
LTPP REPRESENTATIVE
Affiliation_____